

## REMARKS

This Amendment is submitted in response to the Office Action mailed on December 15, 2000. Claims 1, 3-9, 11-15 and 18-19 have been amended, and claims 21-28 have been added to the application. Claims 1-28 remain in the present application. Minor amendments have been made to the specification to correct typographical errors. In view of the foregoing amendments, as well as the following remarks, Applicants respectfully submit that this application is in complete condition for allowance and request reconsideration of the application in this regard.

Claims 1-20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Clack et al., U.S. Pat. No. 5,876,610. Applicants have amended independent claims 1, 9, and 18 to more sharply define the present invention over the prior art of record and respectfully request that the rejections be withdrawn.

By way of background, Applicants' invention is directed to a water purification system for purifying water flowing through a water flow path. The system includes a water purification device having an inlet and an outlet in the water flow path and in fluid communication with at least one interior volume of the water purification device. A purification medium is positioned within the interior volume. A sensing device is provided in the system that is operable to generate a signal that is used to determine a volume of water dispensed from the outlet.

In accordance with one aspect of the present invention, as recited in claims 1-8, the water purification system further includes an input device that is configured to allow a user to input a desired volume of water to be dispensed from the

outlet. An electronic control is coupled with the sensing device and has an output that is responsive to the signal generated by the sensing device for indicating the volume of water dispensed from the outlet. A display is coupled to the electronic control, and is responsive to the output of the electronic control, for displaying the volume of water dispensed from the outlet. In this way, a user of the water purification system is able to input a desired volume of water to be dispensed from the outlet through the input device, and the display provides a visual indication to the user of the volume of water dispensed from the outlet. Applicants have amended independent claim 1, and claims depending therefrom, to more sharply define this aspect of the present invention.

In accordance with another aspect of the present invention, as recited in claims 9-20, the water purification system includes a flow control system for controlling a volume of purified water dispensed from the outlet. The flow control system includes an input device configured to allow a user to input a desired volume of purified water to be dispensed from the outlet and a sensing device operable to generate a signal used to determine a volume of purified water dispensed from the outlet. A flow regulation device is coupled with the flow control system and is operable to stop the discharge of purified water at the outlet when the desired volume of purified water has been dispensed from the outlet. In this way, a user of the water purification system is able to input a desired volume of water to be dispensed from the outlet through the input device. The flow regulation device coupled with the flow control system stops the discharge of purified water at the outlet when the desired volume of purified water has been dispensed from the outlet. Applicants have amended independent claim 9, and claims depending therefrom, to more sharply define this aspect of the present invention.

Independent claim 18, and claims depending therefrom, are also directed to this aspect of the present invention.

Lastly, in accordance with yet another aspect of the present invention, as recited in new claims 21-28, the water purification system includes an input device that is configured to allow a user to input a desired volume of water to be dispensed from the outlet. An electronic control is coupled with the sensing device and has an output that is responsive to the signal generated by the sensing device for indicating the volume of water remaining to be dispensed from the outlet until the desired volume of water to be dispensed from the outlet is reached. A display is coupled to the electronic control, and is responsive to the output of the electronic control, for displaying the volume of water remaining to be dispensed from the outlet until the desired volume of water to be dispensed from the outlet is reached. In this way, the user of the water purification system is able to input a desired volume of water to be dispensed from the outlet through the input device, and the display provides a visual indication to the user of the volume of water remaining to be dispensed from the outlet until the desired volume of water to be dispensed from the outlet is reached. New independent claim 21, and claims depending therefrom, are directed to this aspect of the present invention.

Applicants respectfully submit that Clack et al. taken alone, or in combination with the prior art of record, fails to teach or suggest the combination of elements recited in each of amended independent claims 1, 9 and 18 and the rejections should be withdrawn. Moreover, as claims 2-8, 10-17 and 19-20 depend from allowable independent claims 1, 9 and 18, respectively, and further as each of these claims

recites a combination of elements not taught or suggested by the prior art of record, Applicants respectfully submit that these claims are allowable as well.

In particular, Clack et al. is directed to a liquid flow meter designed to monitor the flow of a liquid through a filtration system. The liquid flow meter includes an axial-flow magnetic turbine and a detector, such as a reed switch, that monitors rotation of the turbine by counting pulses. The counted pulses are used to determine the aggregate volume of liquid that has flowed through the flow meter. The flow meter can also be used to determine the liquid flow rate, the remaining useful life of a filter cartridge of the filtration system and/or the remaining volumetric filtration capacity of the filter cartridge. An alarm may be activated when the rated useful life or volumetric capacity of the filter cartridge is approaching, and a solenoid may then be activated to trigger a shut-off valve (see, for example, Column 4, lines 35-44; Column 6, lines 40-54; Column 7, lines 34-51; Column 13, lines 20-51; and Column 15, lines 4-48). Buttons are provided on the flow meter to set a rated volumetric capacity (e.g., from 100 gallons to 5,000 gallons) for each filter cartridge to be monitored, and to set a rated life of from 1-36 months for each filter cartridge to be monitored (see column 13, lines 20-43).

Applicants respectfully submit that Clack et al. taken alone, or in combination with the prior art of record, fails to teach or suggest a water purification system having an input device configured to allow a user to input a desired volume of water to be dispensed from an outlet of the water purification system as recited in each of Applicants' claims 1-28, and the rejection claims 1-20 as being anticipated by Clack et al. should be withdrawn. New claims 21-28 are respectfully submitted to be allowable for the same reason as well.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **"Version with markings to show changes made"**.

**Conclusion**

In view of the foregoing response including the amendments and remarks, this application is submitted to be in complete condition for allowance and early notice to this affect is earnestly solicited. If there is any issue that remains which may be resolved by telephone conference, the Examiner is invited to contact the undersigned in order to resolve the same and expedite the allowance of this application.

Respectfully submitted,

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## **VERSION WITH MARKINGS TO SHOW CHANGES MADE**

### **In the Specification:**

Paragraph beginning at page 8, line 3, has been amended as follows:

Upon exiting the filter assembly 36, the purified water enters a dispense manifold 44 connected in the fluid circuit 12. The dispenser manifold 44 [including] includes a first normally-closed solenoid valve 46 that is coupled to the flow control system 20. The normally-closed solenoid valve 46 may be selectively opened by the user to direct water through a final filter 48 and through the water outlet 16. When purified water is not being dispensed, a normally-open solenoid valve 50 is provided to direct the water in a recirculating manner through a check valve 52 and back to the beginning of fluid circuit 12 to be continuously recirculated by pump 30. Check valve 52 prevents backflow from inlet 14 and also provides any necessary back pressure for a manual valve (not shown) associated with the [option] optional remote dispensing gun 32.

### **In the Claims:**

Claims 1, 3-9, 11-15 and 18-19 have been amended as follows:

1. (AMENDED) A water purification system for purifying water flowing through a water flow path, the system comprising:

a water purification device having an inlet and an outlet in the water flow path and in fluid communication with at least one interior volume of [said] the water purification device;

a purification medium positioned within the interior volume;  
an input device configured to allow a user to input a desired volume of water to be dispensed from the outlet;

a sensing device [operative] operable to generate a signal used to determine a volume of water dispensed from the outlet; [and]

an electronic control coupled with [said] the sensing device and having an output responsive to [said] the signal for indicating the volume of water dispensed from the outlet; and

a display coupled to the electronic control and responsive to the output for displaying the volume of water dispensed from the outlet.

3. (AMENDED) The water purification system of claim 2, wherein [said] the flow sensor is positioned to measure water flow upstream of [said] the inlet.

4. (AMENDED) The water purification system of claim 2, wherein [said] the flow sensor is positioned to measure water flow downstream of [said] the outlet.

5. (AMENDED) The water purification system of claim 1, wherein [said] the sensing device includes a timer.

6. (AMENDED) The water purification system of claim 5, wherein the control further includes a look-up table with time values usable to determine an amount of time for dispensing the desired volume of purified water from the outlet.

7. (AMENDED) The water purification system of claim 5, wherein the control further includes an algorithm [operative] operable to determine an amount of time for dispensing the desired volume of purified water from the outlet.

8. (AMENDED) The water purification system of claim 1, wherein the control further includes an alerting device configured to alert the user when the desired volume of purified water has been dispensed from the outlet.

9. (AMENDED) A water purification system for purifying water flowing through a water flow path, the system comprising:

a water purification device having an inlet and an outlet in the water flow path and in fluid communication with at least one interior volume of [said] the water purification device;

a purification medium positioned within the interior volume;

a flow control system for controlling a volume of purified water dispensed from the outlet, [said] the flow control system including an input device configured to allow a user to input a desired volume of purified water to be dispensed from the outlet and a sensing device [coupled with the electronic input



device and operative to determine the] operable to generate a signal used to determine a volume of purified water [being] dispensed from the outlet; and

a flow regulation device coupled with the flow control system and [operative] operable to stop the discharge of purified water at the outlet [upon reaching] when the desired volume of purified water has been dispensed from the outlet.

11. (AMENDED) The water purification system of claim 10, wherein [said] the flow sensor is positioned to measure water flow upstream of [said] the inlet.

12. (AMENDED) The water purification system of claim 10, wherein [said] the flow sensor is positioned to measure water flow downstream of [said] the outlet.

13. (AMENDED) The water purification system of claim 9, wherein [said] the sensing device includes a timer.

14. (AMENDED) The water purification system of claim 13, wherein the flow control system further includes a look-up table with time values usable to determine an amount of time for dispensing the desired volume of purified water [corresponding to the desired volume input into the input device].

15. (AMENDED) The water purification system of claim 13, wherein the flow control system further includes an algorithm [operative] operable to determine an amount of time for dispensing the desired volume of purified water [corresponding to the desired volume input into the input device].

18. (AMENDED) A water purification system for purifying water flowing through a water flow path, the system comprising:

a water [purifying] purification device having an inlet and an outlet communicating with at least one interior volume;

a [purifying] purification medium positioned within the interior volume;

a pump for moving water through the inlet, the [purifying] purification medium and the outlet;

an [electronic] input device configured to allow a user to input a desired volume of purified water to be dispensed from [said] the outlet,

a sensing device positioned upstream of [said] the inlet and configured to sense a fluid characteristic of the water flowing through [said] the inlet, [said] the fluid characteristic being at least indirectly indicative of the volume of water flowing through [said] the inlet;

a flow regulation device coupled to [said] the water flow path and configured to control the discharge of purified water from [said] the outlet; and

a control coupled to [said electronic] the input device, [said] the sensing device, and [said] the flow regulation device, [said] the control operating to

manipulate information [provided] generated by [said electronic] the input device and [said] the sensing device to thereby control [said] the flow regulation device to dispense the desired volume of purified water from the outlet.

19. (AMENDED) The water purification system of claim 18, wherein [said] the sensing device comprises a flow sensor operative to measure the flow of water upstream of [said] the inlet.

21. Claim 21 has been added.

22. Claim 22 has been added.

23. Claim 23 has been added.

24. Claim 24 has been added.

25. Claim 25 has been added.

26. Claim 26 has been added.

27. Claim 27 has been added.

28.

Claim 28 has been added.